



The government seeks individual input; attendees/participants may provide individual advice only.

Middleware and Grid Interagency Coordination (MAGIC) Meeting Minutes

August 2, 2023

Virtual Meeting

Participants

Alan Sill (TTU)	Mallory Hinks (NCO)
Mike Nelson (Carnegie Endowment)	Marcy Collinson (Oracle)
Deep Medhi (NSF)	Marlon Pierce (NSF)
Glenn Lockwood (Microsoft)	Michael Corn (NSF)
Hal Finkel (DOE)	Miron Livny (University of Wisconsin)
Kathy Austin (TTU)	Sharon Geva (NSF)
Keith Beattie (LBL)	

Introductions: This meeting was chaired by Hal Finkel (DOE SC)

MAGIC Planning:

September – AI/MAGIC Joint Meeting

October – NSF AI Institute for Network Systems – Suggested by Deep Medhi

- [AI Institute for Future Edge Networks and Distributed Intelligence \(AI-EDGE\)](#) – Ness Shroff
- [AI Institute for Edge Computing Leveraging Next Generation Networks](#) – Yiran Chen

November, December, January

- Lynne Parker (UT Knoxville, formerly OSTP lead for AI) “Wish List” (Joint activity with AI and Big Data?) – suggested by Mike Nelson
- Joint meeting with Big Data, HEC, LSN?
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Other Ideas for Topics

- Decarbonizing Scientific Computing – suggested by Alan Sill
 - Community issues associated with multitenancy
 - Edge model helpful?
- Programming Models
 - Community developed portability layers C++, modern features, etc.
 - Accelerate parallelism in software
 - DSL?
 - Interfacing part of languages, ex. Python
 - Compiler issues – embedded DSLs – build into existing programming language
 - Fuzz Testing, compiler assisted tooling
 - Supporting a heterogeneous environment is hard to support

- Seeing things from a commercial perspective – Oracle – small demo on project they are working on
- Data parameters across international boundaries
- Integrated development systems – IDEs (VS Code)
- Have these new code modules changes Requirements – workflow programming models
- Digital assets, computational steps – reproducibility
- Middleware and end-user environments: science gateways, notebooks, etc.
- Middleware authentication, authorization practices for supporting cross-resource usage by workflow systems, science gateways, etc., spanning academic, federal computing, and commercial cloud resources.
- NAIRR and MAGIC, including enabling expected usage scenarios (capacity, capability)
- Return on Investment: What should be measured and how?
- Lynne Parker – UT Knoxville – “Wish List” Joint activity with AI and Big Data – suggested by Mike Nelson (Lynne Parker, formerly OSTP P lead for AI.) – December? January?
- Cloud Resiliency
- Joint meeting on Digital Assets (Digital Wallets) – Mike Nelson
- Sandy Pentland’s book <https://wip.mitpress.mit.edu/new-economy> - Mike Nelson
- Carnegie Cloud Reassurance project: <https://carnegieendowment.org/2023/06/12/cloud-reassurance-project-interim-report-pub-89927> - Mike Nelson
- Sustainable software, promoting people’s careers, user interfaces for scientific software
- Planning broader cyber infrastructure for the whole country – Michael Corn

General Suggestions

- Workforce Development tied into each topic rather than its own topic – Sharon
- Value in connecting people – Mike Nelson
- Comment on educational value of speaker series vs having an impact – Keith Beattie
- Suggestion for meetings to review or work on a specific topic. Potentially a white paper? – Marlon
 - Hal commented that HEC wrote a white paper on agency perspective on sustainable software that turned out really well
- Mike Nelson said that he attended a workshop by World Data System and suggested that we could work with them for a meeting? He mentioned Bonnie Carroll.

Next Meeting September 6, 2023